



Chad Cochran  
10/27/05  
WT-03-235

To: Marlene H. Dortch, Secretary – FCC

Re: Comments on Proposed Amateur Radio Rules Eliminating Morse Code  
Telegraphy Testing

Dear Secretary Dortch,

**DOCKET FILE COPY ORIGINAL**

Thank you for the opportunity to respond to the FCC's request for public comments on the proposed Amateur Service Rules, 70 Fed. Reg. 51705-01 (Aug. 31, 2005). As a technologically prone graduate student, I recognize the value of developing modern communication services and, like you, hope to provide the American people with the best possible access to those systems. I agree with your proposal and most public comments that current telegraphy testing should be eliminated for General Class amateur radio licenses. However, I respectfully seek reconsideration of several petitioners' request that telegraphy testing remain a requirement for the Amateur Extra Class.

Introduction

I compliment the FCC's Notice of Proposed Rule Making ("NPRM") as it recognizes Morse code's declining importance, while permitting its continued use in amateur radio communications. Morse code's utility peaked long ago and exists in a state of decline. Digital and voice communications have rendered the rudimentary technique largely obsolete. Moreover, public comments reflect that prospective amateur radio operators generally show little interest for the somewhat archaic practice. Nevertheless, steady Morse code communities exist, amongst the amateur radio ranks, which regularly transmit/receive continuous wave ("CW") messages worldwide.<sup>1</sup> On its face, your decision seems like a proper response to the current telegraphical situation.

<sup>1</sup> Wikipedia Encyclopedia – Morse Code - [http://en.wikipedia.org/wiki/Morse\\_code](http://en.wikipedia.org/wiki/Morse_code)

No. of Copies rec'd 0 + 4  
List A B C D E

Upon extensive review of the NPRM and background materials, I would also like to address a couple concerns about the proposed rule's rationale. The FCC's proposed decision to remove Morse code telegraphy testing will undoubtedly result in additional amateur radio operators obtaining the General Class operator license. Alternatively, the test's deletion will inevitably produce fewer Morse code proficient Americans. The FCC rationale weighs these opposing considerations (additional General Class operators v. Morse code proficiency) and ultimately selects the former by concluding that "maintaining a telegraphy requirement...would not be in the public interest."<sup>2</sup> In my opinion, the NPRM's analysis of these considerations seems underdeveloped in two key areas, (1) it inadequately explains the connection between the telegraphy test and accessibility to amateur radio stations and (2) it never discusses the social value of Morse code proficiency.

#### Accessibility of Amateur Radio Stations

*"One does not plan and then try to make circumstances fit those plans. One tries to make plans fit the circumstances." – George S. Patton, Jr. (1947)*

Congress' mission requires the FCC to "ensure that American people *have available*...rapid, efficient, nation and world-wide communication services." Ultimately, I agree that the proposed rule satisfies the "have available" language by providing quality amateur radio access to a broader population. Still, the NPRM largely dodges the vital explanation of why the deleted test will increase meaningful amateur radio access. Such an approach could create the dangerous perception that this NPRM is nothing but a result-oriented process devoid of public input.

---

<sup>2</sup> NPRM at 11.

To the FCC's credit, the NPRM lists two conclusions directly related to its mission of ensuring quality American radio access:

1. Encourage individuals who are interested in communications technology, or who are able to contribute to the advancement of the radio art, to become amateur radio operators;
2. Eliminate a requirement that we believe is now unnecessary and that may discourage amateur service licensees from advancing their skills in the communications and technical phases of amateur radio.

The NPRM's "Discussion" section lists a number of explanations for adopting the new rule: changes in international requirements, amateur service community support, trends toward modern digital and voice techniques, etc. These justifications largely dance around the central question, addressed by the above conclusions, of whether the change will encourage new radio operators and radio skill development.

Will elimination of the General Class telegraphy test encourage new amateur radio operators when newcomers currently obtain the introductory amateur radio license (Technician Class) without a Morse code requirement? Will the increased number of General Class licensees degrade the status of medium or high frequency connections? I have independently located answers to these and other questions, but my independent research should not be necessary. Agency expertise should provide public answers to my fundamental questions.

Although current beginner radio operators need not pass a telegraphy test, public comments display a common perception that Morse code knowledge is required for all new radio operators. Most teenagers and young adults (the prime market for new operators) can be attracted by new technology. However, they have no desire to learn Morse code. Cell phones and wireless toys are cool. Dots and dashes are not. Should

the FCC delve into what is cool? Absolutely. In fact, FCC's stated goal of encouraging new individuals to become amateur radio operators requires it.

Perceptions can cause much more damage than the truth. Here, intermediate (General Class) telegraphy testing aids the dangerous perception that beginning radio operators must learn Morse code. Although meagerly explained by the FCC, I agree with its first conclusion that eliminating telegraphy tests for the General Class will encourage potential radio operators.

The FCC secondly concludes that intermediate telegraphy testing may discourage current licensees from advancing their amateur radio skills. Public comments recognize that, despite extensive study, the difficult Morse code test prevents otherwise capable adults from obtaining licenses for additional bandwidth access.<sup>3</sup> Several other radio hobbyists simply choose not to pursue additional licenses because the Morse code requirement seems like an unnecessary waste of time. The ARRL affirms this common mindset by recognizing that 75% of radio amateurs never utilize the CW communication technique.

Others argue that the rule would prejudice several current General Class licensees who had to suffer through the test. Ignoring jealousy, these radio users assert that the rule will allow inadequately-trained licensees access to amateur radio communications. These comments are built on elite attitudes that attempt to restrict, rather than expand, access to public airways. I find inadequate-training claim laughable as the *vast* majority of radio users will use complex digital and voice communication techniques.

The FCC should certainly promote skill development in order to promote more efficient communications. That said, intermediate requirements should reflect nothing

---

<sup>3</sup> See David Sinex Public Comment 6518169672.

more than the skills needed to enjoy safe, typical use of amateur radio waves. Morse code's obscure role no longer impacts the average operator's typical use. The dangers of new radio operators without Morse code proficiency are minimal when compared with the price of overly restricting Americans from easily obtaining an intermediate license. Sound policy requires that the FCC promote skill development intermediate licensing by removing Morse code requirements.

Aside from my concerns about the adequacy of the explanation, I agree that the change will encourage additional, better-trained radio operators. Removal of intermediate telegraphy testing furthers FCC's goal of ensuring quality accessibility to the amateur radio stations. Thus, I support removing the Morse code telegraphy test for General Class amateur radio licenses.

#### Value of Telegraphy Testing

*"The more minimal the art, the more maximum the explanation."  
– Hilton Kramer, The New York Art Times Critic (1960).*

Morse code's simplicity makes it an easy figure for attack. The modern world focuses on flashy devices, easy input, and instant results. However, Morse code's greatest drawback is also its greatest asset. The ease of sending low bandwidth on-off signals provides a very useful forum when all else fails. The method still enjoys use today because, even in a technologically advanced society, the simplest form of communication sometimes prevails.

The NPRM fails to consider whether Morse code enjoys any inherent value in the amateur radio world. The FCC dodges the central question by citing previous findings in the *Restructure Report and Order*: "an individual's ability to demonstrate *increased* Morse code proficiency is not necessarily indicative of his or her ability to contribute to

the advancement of the radio art.” However, the report addressed the value of increased Morse code proficiency (from 5 wpm to 13 wpm) rather the value of proficiency itself. The FCC’s proposed removal of all telegraphy tests shows that it deems Morse code relatively worthless. The public should be informed of that valuation.

A fundamental purpose of the amateur radio service is to accommodate the advancement of the radio art.<sup>4</sup> CW communications, via International Morse code, regularly transmit across international boundaries and enjoy the ability to easily break language barriers. Americans have long led the international community in messages sent abroad. Although our country quickly incorporates technological advances, less-developed countries continue using older communication techniques.<sup>5</sup> Communication with technologically-isolated individuals might only be possible using the simple technique. Until the international Morse community dies, the FCC must realize the value in rudimentary communication between people of very different social, economic, and technological backgrounds. The exchange of ideas is central to amateur radio art, and any proposal to destroy such a forum should be exercised with extreme caution.

Likewise, emergency communications are of fundamental importance to amateur radio.<sup>6</sup> Amateur radio’s important emergency role played out in the recent Katrina disaster with radio hams coordinating several rescue efforts.<sup>7</sup> Morse code opponents claim that only digital voice techniques prove useful. However, disasters are inherently

---

<sup>4</sup> 47 CFR § 97.1 (b).

<sup>5</sup> It is worth noting that the majority of countries which no longer require Morse code testing are technologically adept countries in Europe.

<sup>6</sup> Id. at subsection (a).

<sup>7</sup> <http://www.arrl.org/news/stories/2005/10/26/101/?nc=1>

unpredictable. Equipment can be destroyed, and connections can fade. A system that requires minimal equipment and can transmit across small bandwidths with significant interference seems ideal.

Morse code's emergency value extends beyond wireless bounds. For example, Morse code allowed Iranian prisoners to communicate through prison walls.<sup>8</sup> I can speak from first hand experience that Morse code signaling plays a vital role in wilderness rescues as I had the unpleasant experience of becoming lost in the Utah desert. Morse code can protect a person in a variety of unexpected situations. The FCC cannot wholly discount its value without explanation.

I agree with ALLR's proposal that "a demonstration of capability in Morse telegraphy is an element of communications operating skill that should be included in the portfolio of operating skills demonstrated by the most accomplished radio amateurs."<sup>9</sup> Unlike intermediate operators, Advance Extra licensees enjoy access to the entire amateur service spectrum. Licensees seeking to achieve the most elite amateur licensing statement should be best prepared to communicate across the amateur spectrum in a time of emergency. Unlike intermediate testing, the perception that advanced radio operators can communicate despite serious technological barriers seems helpful to amateur radio's credibility. Thus, considering the value that still exists in Morse code communication, I request that the FCC reconsider the ALLR's proposal to require Morse code telegraphy testing for the elite Advance Extra license.

---

<sup>8</sup><http://www.irantestimony.com/Docs/Report/AI/AI%20IRAN,%20Violation%20of%20Human%20rights%201987-1990.htm>

<sup>9</sup> NPRM at 8.

Conclusion

The FCC's proposal to eliminate Morse code telegraphy testing for the General Class license seems totally consistent with its statutory and regulatory goals of ensuring accessibility to communication systems. Although I remain unsatisfied with the NPRM's explanation, I agree that eliminating the test for intermediate licenses will produce newer and better-trained radio operators. I cannot, however, support the proposed elimination of all Morse code testing. Morse code survives as a viable means of international and emergency communication. Because I cannot wholly discount Morse code's value, I respectfully request that the elite Amateur Extra license require telegraphy testing.